



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/698,069

10/30/2003

Prasenjit Sarkar

ARC920030075US1

9724

55508

7590

10/20/2008

JOSEPH P. CURTIN, L.L.C.

1469 N.W. MORGAN LANE

PORTLAND, OR 97229-5291

EXAMINER

CHANG, JULIAN

ART UNIT

PAPER NUMBER

2452

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,069	<b>Applicant(s)</b> SARKAR ET AL.	
	<b>Examiner</b> JULIAN CHANG	<b>Art Unit</b> 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is responsive to communication filed on 07/10/08. Claim 7 is pending, and has been examined below. Any rejection or objection not repeated below has been withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2001/0025315 ("Jolitz"), and further in view of U.S. Pat. No. 6,570,884 ("Connery"), and U.S. Pat. No. 6,094,712 ("Follett").

3. Jolitz teaches a method comprising:

detecting an application packet header using a packet classifier within a network adapter ('Upon receiving an incoming packet, the header is decoded...', para. [0077]), the application header belonging to a packet in a data stream associated with the application (para. [0082]);

identifying offsets included within the application header ('determine the location of the source and destination addresses and ports', para. [0077]);

loading a plurality of registers with the identified offsets ('may be held in an ADE register', para. [0077]);

initiating direct data placement of data associated with the application packet header when a result of comparing a set of values corresponding to a direct data placement pattern with contents of the loaded registers matches one of at least one of a plurality of direct data placement pattern available for comparison ('compares a number of fields of the IP header with expected values stored in a plurality of registers', para. [0076]), each direct data placement pattern being associated with an application packet header ('determine to which session an incoming IP datagram belongs', para. [0075]), and wherein initiating direct data placement comprises:

comparing each of a plurality of direct placement patterns with contents of the loaded registers ('comparing of session fields of the packet obtained from the prototype register and variable fields...', para. [0077]; also para. [0050]);

extracting information corresponding to the detected application header ('Data from the segment is read into the dual transport application memory', para. [0081]); and

mapping a payload of the detected application header to a memory based on the direct data placement pattern ('delivers the TCP payload directly to the memory 24', para. [0044]; also para. [0080])

Jolitz fails to teach that the memory is a predetermined region of memory reserved for the application. Follett teaches mapping virtual addresses of applications to corresponding physical addresses, and locking the physical addresses to prevent

inadvertent overwrite (Col. 4, lines 41-63). When data is received, the header is parsed, and the data is transferred to the specific physical memory locations that are mapped to the application virtual addresses (Col. 6, lines 18-33). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to map a payload directly to a predetermined region of memory reserved for an application as taught by Follett in order to efficiently achieve protocol acceleration without intervention of the host operating system.

Jolitz-Follett fails to teach performing the comparison by masking the header offsets stored in the registers with a direct data placement pattern. However, Connery teaches pattern matching engines capable of masking a pattern with header fields stored in registers (Col. 7, lines 35-51). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to mask a pattern with header fields stored in registers in order to specify which bytes in each packet should be examined for a match.

### ***Response to Arguments***

4. Applicant's arguments with respect to claim 7 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIAN CHANG whose telephone number is (571)272-8631. The examiner can normally be reached on Monday thru Friday 9AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2452

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. C./

Examiner, Art Unit 2452

/Kenny S Lin/

Primary Examiner, Art Unit 2452